Author's response to reviews

Title: A review of interventions triggered by hepatitis A infected food-handlers in Canada

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Version: 5 Date: 1 December 2006

Author's response to reviews: see over
Author's response to reviews

Title: Published data underestimates the burden of hepatitis A intervention triggered by infected food-handlers

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Version: 3 Date: 30 November 2006

Author's response to reviews: see over
November 29, 2006

To:

Dr Alexander Pemberton,
In-house Editor,
and the BioMed Central Editorial Team,
BioMed Central Health Services Research Journal

Dear Dr. Pemberton and colleagues,

RE: Manuscript 1676936929111857: “Published data underestimates the burden of hepatitis A intervention triggered by infected food-handlers”

Thank you very much for your email dated November 13, 2006 and the included peer reviews. We are pleased that the BioMed Central Health Services Research Journal found our manuscript acceptable for publication with discretionary revisions.

We have carefully reviewed the suggestions made by the two reviewers and have revised the manuscript accordingly as requested. We also have re-formatted the manuscript using your “Manuscript formatting checklist”. This updated version of the manuscript has been uploaded on your website. Further, as you requested, we have enclosed a table with a point by point reply to the various recommendations of the referees, and have also indicated where any changes have been made (enclosed below).

Please address all correspondence to: Andrea C. Tricco, Chalmers Research Group, Children’s Hospital of Eastern Ontario Research Institute, Room 207, 401 Smyth Road, Ottawa, Ontario, Canada, K1H 8L1, telephone (613-737-7600 extension 3038), fax (613-738-4800), email: atricco@cheo.on.ca.

Thank you very much for your review and consideration of our manuscript.

Yours sincerely,

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Ottawa, Ontario, Canada
**Reviewer’s Comments and Responses: BioMed Central Health Services Research Manuscript # 1676936929111857**

<table>
<thead>
<tr>
<th>Reviewer</th>
<th>Comments</th>
<th>Responses</th>
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<tr>
<td>Editor Dr. Alexander Pemberton</td>
<td>One reviewer has also suggested you may want to delete the opening two sentences of the background as this is common knowledge.</td>
<td>The first two paragraphs of the introduction have been removed.</td>
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<tr>
<td>Reviewer #1 R Jake Jacobs</td>
<td>1) Page 2, paragraph 2 - It may was not immediately clear to me what the acronym PEP indicated. I later surmised it to mean post-exposure prophylaxis. This should probably be spelled when the acronym is first used.</td>
<td>1) We have spelled out the PEP acronym the first time that it appears (i.e., first paragraph of the background section).</td>
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<td>Reviewer #1 R Jake Jacobs</td>
<td>2) Page 2, paragraph 3 - It may be useful to discuss the proportion of HAV cases that are actually captured through surveillance systems. Data from the US (Armstrong and Bell, Pediatrics, 2002) suggest only a minority of HAV cases are reported.</td>
<td>2) The following sentences have been added: “Further encumbering this issue is the fact that only a small proportion of HAV cases are notified. According to USA data, 1 in 10 cases are reported via the disease notification systems [8].”</td>
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<td>Reviewer #1 R Jake Jacobs</td>
<td>3) Page 2, paragraph 4 - should MEDLINE now be called PubMed?</td>
<td>3) We searched the Medline database using the OVID interface. According to the National Library of Medicine, MEDLINE is the largest component of PubMed and covers over 4,800 journals published in the USA and more than 70 other countries primarily from 1966 to the present. MEDLINE differs from PubMed, as it can be searched using MeSH terms. In order to make this clear to the readers, we have added the following sentence: “All searches were conducted using the OVID interface.”</td>
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<td>Reviewer #1 R Jake Jacobs</td>
<td>4) Page 2, paragraph 4 - I presume the start dates of 1966 for MEDLINE and 1980 for EMBASE reflect the first availability of data. If so, please state.</td>
<td>4) It now reads “A literature search of MEDLINE (1966; year of inception to March 2005) and EMBASE (1980; year of inception to March 2005) was conducted.”</td>
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<td>Reviewer #1 R Jake</td>
<td>5) Page 3, first full paragraph - Methods, second paragraph - Was there really disagreement between</td>
<td>5) As there were minimal disagreements that did not affect the study results, we did not feel that this information would</td>
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<td>Reviewer #1 R Jake Jacobs</td>
<td>6) Page 3, second full paragraph - Why are references 12 &amp; 13 cited here? Are these simply examples of studies using similar (dual reviewer) methods?</td>
<td>6) The sentence now reads as: “Using the Centers for Disease Control and Prevention framework for the investigation of infectious disease outbreaks [12,13], data pertaining to case identification, public health risk, PEP interventions, and associated costs was independently abstracted by two reviewers.”</td>
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<td>Reviewer #1 R Jake Jacobs</td>
<td>7) Page 3, second full paragraph - While it more fully described on page 5, please indicate in the Methods section which specific actions are required to classify an intervention as “limited” versus “large.”</td>
<td>7) We have modified this section. It now reads as “Data was summarized according to the extent of post-exposure prophylactic intervention by the local public health in dealing with an infected food handler. Incidents with limited PEP interventions were those that required 1) a public notification to advise the public and healthcare providers to watch out for potential HAV-related symptoms, and/or 2) immunization of close contacts (e.g., family, colleagues at work). In contrast, incidents with large PEP interventions were those that required 1) a public notification that included eligibility criteria for vaccination and 2) public immunization campaigns.”</td>
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<tr>
<td>Reviewer #1 R Jake Jacobs</td>
<td>8) Page 4, first paragraph - The term “not infrequent” seems to imply a judgement or conclusion, and may be moved to the discussion section.</td>
<td>8) We have modified the sentence so that it now reads as “In Canada, approximately 3 incidents of infected food handlers requiring public notification occurred per year between 2001 and 2004 (Table 1).”</td>
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<td>Reviewer #1 R Jake Jacobs</td>
<td>9) Page 4, first paragraph - You should probably indicate that “reported” secondary cases occurred in 12/16 events. There could have been unidentified cases.</td>
<td>9) Thank-you for pointing this out. The word “reported” has been added to this sentence.</td>
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<td>Reviewer #1 R Jake Jacobs</td>
<td>10) Page 7, second full paragraph - Please note that reference 31 only considers food workers who</td>
<td>10) The sentence has been changed to: “A previous cost effectiveness analysis suggested that vaccinating food service</td>
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</table>
Jacobs resided in states with elevated HAV rates before routine childhood vaccination was implemented. workers in states with elevated HAV rates prior to routine childhood vaccination was cost-effective [31].”

**Reviewer #2**

**Dr. Robert Steffen**

1) Title should be amended to add "in Canada" in the end. Would also suggest to delete in the beginning "Published data underestimates" — while being the conclusion it looks a bit like marketing.

1) Thank-you for this suggestion. We have changed our title to: “A review of interventions triggered by hepatitis A infected food-handlers in Canada”

**Reviewer #2**

**Dr. Robert Steffen**


2) We have added the following paragraphs in the discussion: “Countries such as Canada with low HA endemicity have experienced declining incidence of new cases of HAV in the past decade [33]. However, this has led to a declining prevalence of antibody to HA in the population, resulting in an adult population not protected against HAV [33]. In the meantime, sporadic outbreaks of foodborne HA, related and unrelated to a food handler, continue to occur [2,33-35]. Recently, contaminated green onions were served to customers of a single restaurant in Pennsylvania, leading to a large outbreak in the United States [34].

HAV-infected food handlers have been the source of most reported foodborne HA outbreaks. Six outbreaks that occurred in the 1990s have recently been document in a review of HA foodborne transmission [2]. Our results are consistent with observations elsewhere; a single infected food handler can transmit HAV to dozens or even hundreds of individuals and cause substantial economic burden [2,30]. Specific public health interventions [34,36,37] are required to contain this form of transmission until high levels of immunity are achieved across all age groups, perhaps as a result of routine HA vaccination [33,35].
Universal immunization of young children, implemented in some western and south-western parts of the United States, substantially reduced the incidence of HAV [38]. Due to its cost-effectiveness potential, this policy is being considered for other regions [39,40], including calls for its expansion nationally [41]. In Canada, the current immunization strategy to control HA is to vaccinate groups at risk [42]. However, this strategy has been shown as ineffective among travelers [43] and very limited data are available on its effectiveness in other risk groups. Recent seroprevalence studies have shown that only 3% of children ages 8-13 are protected against HAV [44], whereas disease acquisition occurs in adulthood with approximately 10% of Canadians infected by ages 24-29 [11,45-47]. Concern with this seemingly lack of protection has led to calls for the reassessment of the current policy regarding HA vaccination [4,44,48]. Universal vaccination could eliminate the spectrum of PEP interventions related to HA cases in food handlers that emerge periodically [33].